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BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

FOREST INSECT INVESTIGATIONS

REPORT OF FOREST INSECT CONDITIONS IN CUYAMACA STATE PARK, CALIFORNIA

JUNE 1936

by
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Berkeley, California
August 25, 1936

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Forest Insect Laboratory
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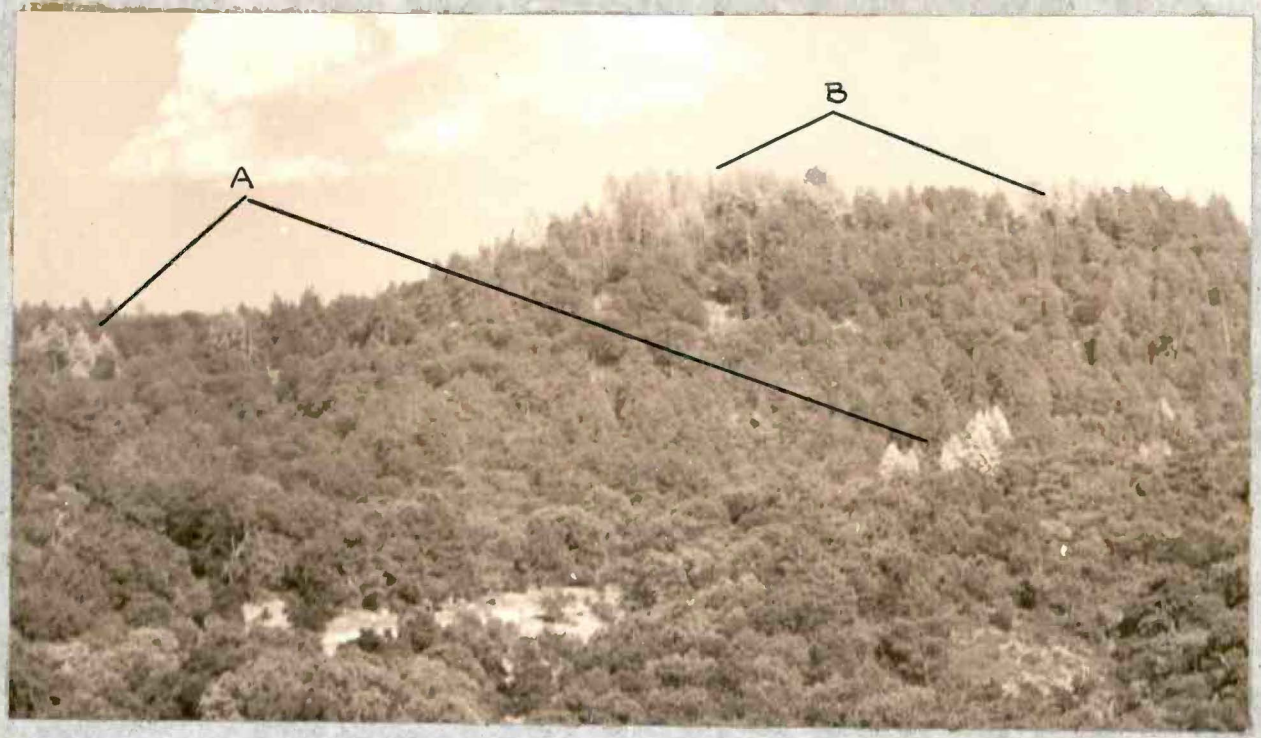
An insect reconnaissance was made of the forests of the Cuyamaca State Park and adjacent timbered areas on June 24 and 25. The areas outside of the park were examined in company with Supervisor Ellis of the Cleveland Forest. Burnett Sanford of the Branch of Forestry, National Park Service, and CCC Superintendent Porney assisted in the survey of the park areas.

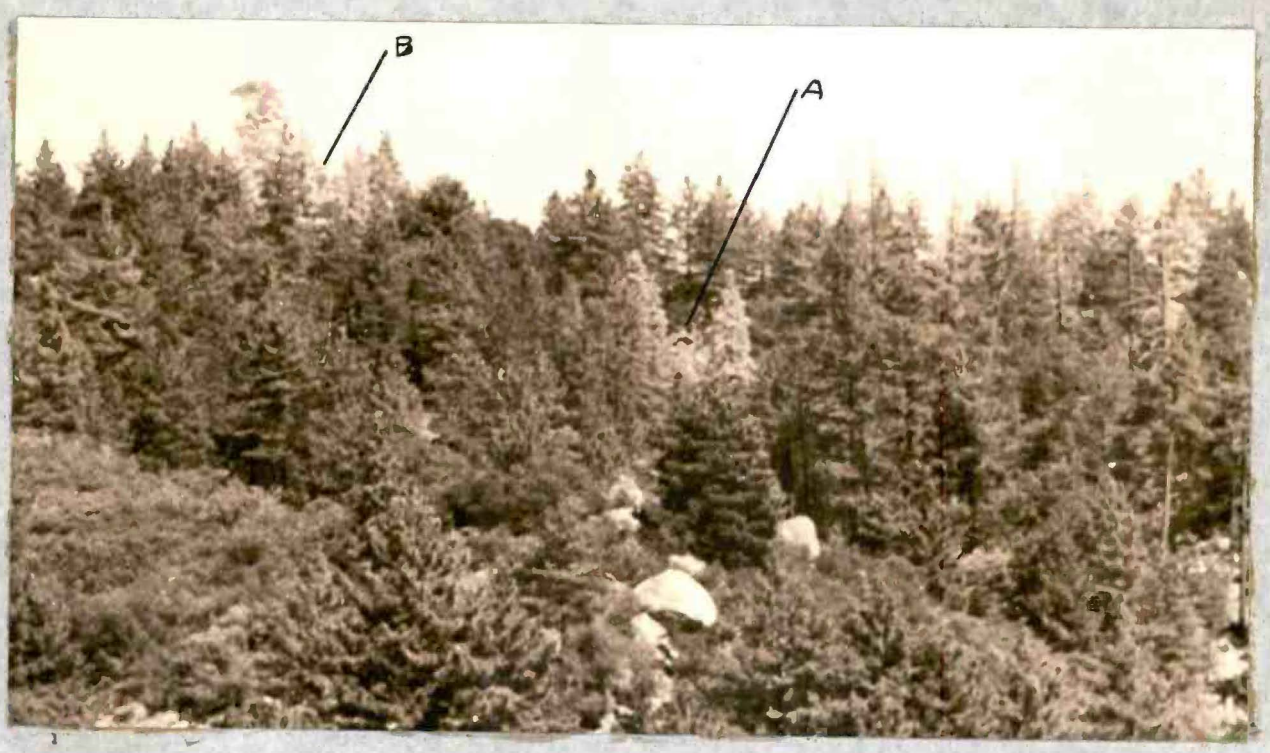
Forest insect conditions on this park are generally good, since recent infestations have been down to the minimum over the greater part of the forested areas. However, a local infestation appeared on the southeast flank of Cuyamaca Peak in 1935 which spread rapidly over an area of about 2,000 acres. The winter broods which developed from attacks made late in 1935 were treated in the spring of 1936. This control work was done by CCC labor under the direction of Foreman Goss, an experienced insect control man, and resulted in the treatment of 325 infested trees on the 2,000 acre area worked. Examination of several treated groups showed that the control work had been thoroughly done. Very few infested trees were missed on the control area. It was, however, too early at this time to determine the full effects of the control work, or the amount of recurrent infestation that may appear. Since no current beetle attacks could be found on the area worked it seems evident that the infestation on this area has been temporarily checked.

Conditions in the extreme western margin of the park, and in the adjoining forested areas outside the park are, however, quite different. There is a disturbing number of fresh group infestations springing up in these mixed stands of ponderosa and Coulter pine. These groups extend from the western slopes of North Peak south to the western ridges of Cuyamaca Peak and cover an area of about 12 sections. The infestation is not uniform throughout this zone, but occurs in groups of young trees ranging in number from 3 or 4 to as many as 60 trees in each group. Photographs of two small sections of this infestation, showing both recent and older groups, are shown on the plate, Page 3. There is sufficient evidence to show that this infestation has greatly increased during the past year. A comparison of the number of older groups with the most recent ones shows that the increase has been at least twofold since 1934. The larger number of infested trees in the recent groups also show that the infestations have increased in number of trees attacked. At the time the examination was made it was too early to secure quantitative data on the amount of 1936 loss, since only a part of the total loss of this year had then occurred, and very few trees already attacked by the early seasonal broods had faded. The prevalence of freshly attacked trees close to several faded groups that were examined, indicated that the total seasonal loss of 1936 will equal if not exceed that of last year. These recently infested trees had not yet faded but were heavily attacked by the western pine beetle. Numerous prominent pitch tubes at points of attack indicate that the trees are putting up considerable resistance which may adversely affect brood development. However, the 1936 trend of this infestation cannot be finally determined until later in the fall when a large portion of this loss will be evident in faded trees.

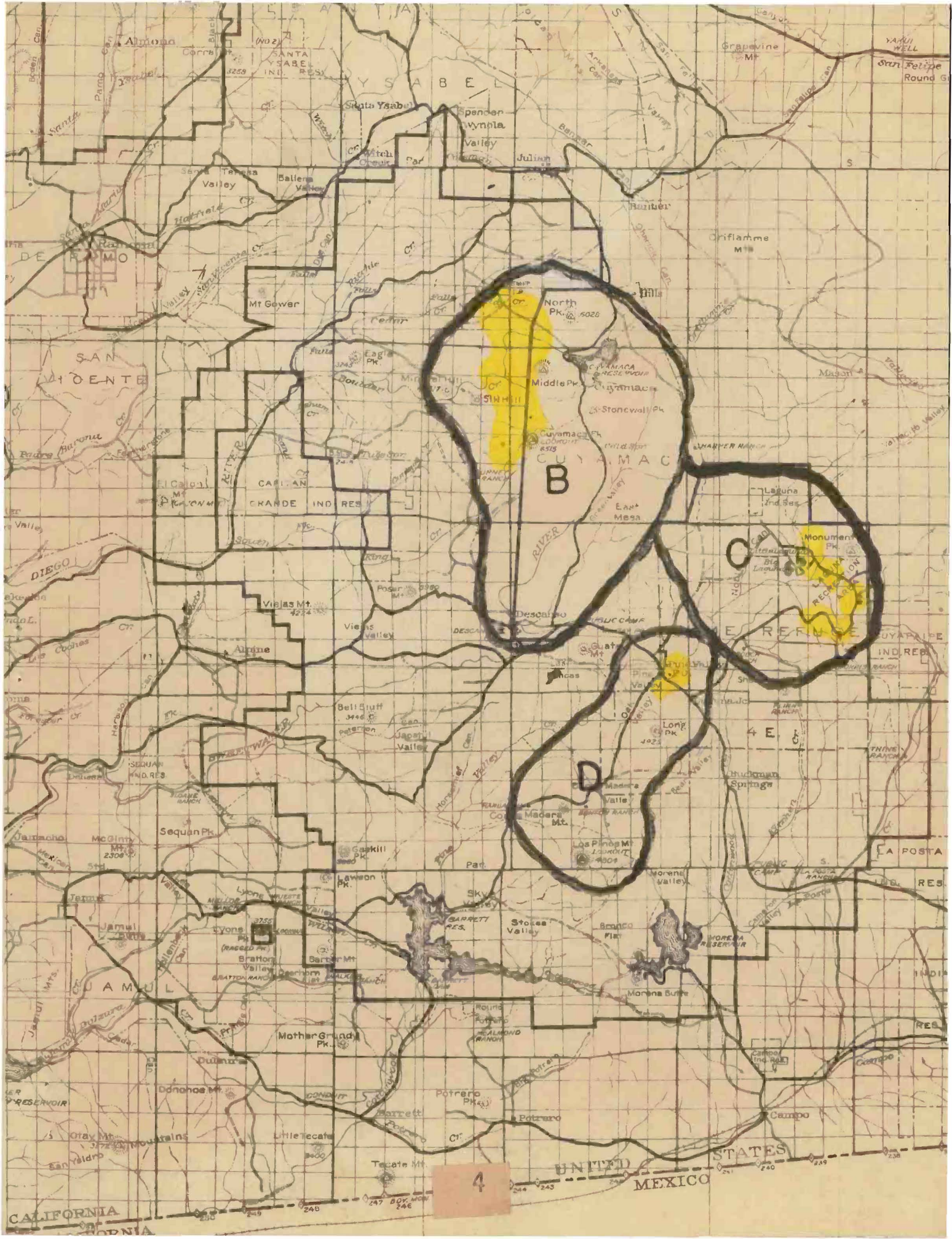
The possibility of this infestation spreading eastward into the stands on the main divide should be given consideration. Already there are several small groups well up on the slopes toward this divide and inside the park line. An aggressive infestation could soon cover the entire western half of the park, and destroy a great number of trees in these forests.

Another examination should be made in September or early October for the purpose of securing complete data on the current year's loss. The trend of the infestation should be clearly evident at that time and the advisability of control can then be determined. If control work is found necessary and undertaken, the problem of securing the cooperation of the various owners of the timber stands will have to be worked out.





Group infestation in ponderosa and Coulter pine on west side of Cuyamaca Peak. The insect killed trees appear in lighter tone than the surrounding green trees, which is due to the foliage having faded. Actually they are sorrel to orange-red; the panchromatic photograph renders these colors as white. The beetle killed trees occurring in small to large groups "A" represent a recent spread and buildup of the infestation. The groups "A" were attacked by the western pine beetle late in 1935 and represent the most recent loss. The darker colored groups "B" were attacked and killed in the spring of 1935, and represent the preceding generation of beetles.


B
C
D
Cuyamaca
Descanso
Viejas Mt.
Alpine
Mt Gower
North Pk.
Middle Pk.
Stonewall Pk.
Eagle Pk.
Laguna Ind. Res.
Monument Pk.
Bell Stuff
Japatul Valley
Sequan Pk.
Gaskill Pk.
Lawson Pk.
Barrett Mt.
Mother Grundy Pk.
Dulzura
Otay Mt.
Little Tecate
Tecate Mt.
Potrero
Campo
Morena Butte
Stokes Valley
Barrett Res.
Morena Reservoir
Los Pinos Mt.
Long Pk.
Thurman Springs
Grapevine Mt.
Oriflamme Mt.
Julian
Banner
Spencer Valley
Santa Ysabel
Santa Teresa Valley
Ballena Valley
Mc Ginty Mt.
Jamul Mts.
Otay Reservoir
Morena Valley
Stokes Valley
Campo Ind. Res.
Cuyapaipe Ind. Res.
La Posta Ind. Res.
Sequan Ind. Res.
Cuyamaca Reservoir
Cuyamaca Rancho State Park
Lake Cuyamaca Recreation Area
Harper Ranch
Thing Ranch
Mason Valley
Cuyamaca Mts.
Laguna Mts.
Santa Ysabel Ind. Res.
Capitan Grande Ind. Res.
Viejas Valley
East Mesa
San Felipe Round Valley
Yaqui Well
Banner
Julian
Cuyamaca
Descanso
Alpine
Campo
Potrero
Tecate
UNITED STATES
MEXICO
CALIFORNIA
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